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D2

Program 9: Movie database

Consider the schema for Movie Database:

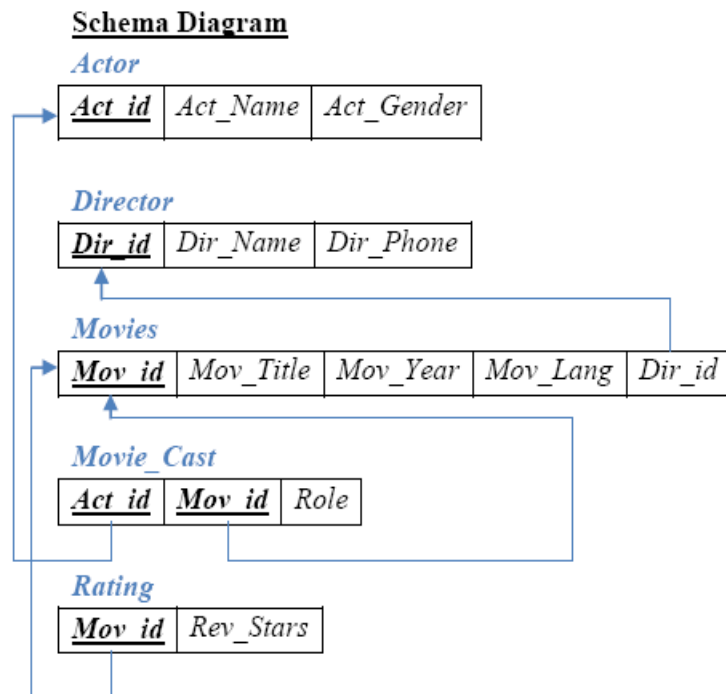
ACTOR (Act_id, Act_Name, Act_Gender)

DIRECTOR (Dir_id, Dir_Name, Dir_Phone)

MOVIES (Mov_id, Mov_Title, Mov_Year, Mov_Lang, Dir_id)

MOVIE_CAST (Act_id, Mov_id, Role)

RATING (Mov_id, Rev_Stars)



create database movie;

use movie;

```
create table actor(  
  act_id int,  
  act_name varchar(20),  
  act_gender char(1),  
  primary key(act_id));  
desc actor;
```

```
create table director(  
  dir_id int,  
  dir_name varchar(20),  
  dir_phone int(10),  
  primary key(dir_id));  
desc director;  
alter table director  
modify column dir_phone bigint;  
desc director;
```

```
create table movies(  
  mov_id int,  
  mov_title varchar(25),  
  mov_year int,  
  mov_lang varchar(12),  
  dir_id int,  
  primary key(mov_id),  
  foreign key(dir_id) references director(dir_id));  
desc movies;
```

```
create table movie_cast(  
  act_id int,  
  mov_id int,
```

| | dir_id | dir_name | dir_phone |
|---|--------|------------------|------------|
| ▶ | 60 | RAJAMOULI | 8751611001 |
| | 61 | HITCHCOCK | 7766138911 |
| | 62 | FARAN | 9986776531 |
| | 63 | STEVEN SPIELBERG | 8989776530 |
| * | NULL | NULL | NULL |

```

role varchar(10),

primary key(act_id,mov_id),

foreign key(act_id) references actor(act_id),

foreign key(mov_id) references movies(mov_id));

desc movie_cast;

```

```

create table rating(

mov_id int,

rev_stars varchar(25),

primary key(mov_id),

foreign key(mov_id) references movies(mov_id));

desc rating;

```

```

insert into actor values(301,'ANUSHKA','F');

insert into actor values (302,'PRABHAS','M');

insert into actor values(303,'PUNITH','M');

insert into actor values(304,'JERMY','M');

commit;

select * from actor;

```

| | act_id | act_name | act_gender |
|---|--------|----------|------------|
| ▶ | 301 | ANUSHKA | F |
| | 302 | PRABHAS | M |
| | 303 | PUNITH | M |
| | 304 | JERMY | M |
| * | NULL | NULL | NULL |

```

insert into director values(60,'RAJAMOULI', 8751611001);

insert into director values(61,'HITCHCOCK', 7766138911);

insert into director values(62,'FARAN', 9986776531);

insert into director values(63,'STEVEN SPIELBERG', 8989776530);

commit;

select * from director;

```

```

insert into movies values(1001,'BAHUBALI-2', 2017, 'TELUGU', 60);
insert into movies values(1002,'BAHUBALI-1', 2015, 'TELUGU', 60);
insert into movies values(1003,'AKASH', 2008, 'KANNADA', 61);
insert into movies values(1004,'WAR HORSE', 2011, 'ENGLISH', 63);
commit;
select * from movies;

```

| | mov_id | mov_title | mov_year | mov_lang | dir_id |
|---|--------|------------|----------|----------|--------|
| ▶ | 1001 | BAHUBALI-2 | 2017 | TELUGU | 60 |
| | 1002 | BAHUBALI-1 | 2015 | TELUGU | 60 |
| | 1003 | AKASH | 2008 | KANNADA | 61 |
| | 1004 | WAR HORSE | 2011 | ENGLISH | 63 |
| * | NULL | NULL | NULL | NULL | NULL |

```

insert into movie_cast values(301, 1002, 'HEROINE');
insert into movie_cast values(301, 1001, 'HEROINE');
insert into movie_cast values(303, 1003, 'HERO');
insert into movie_cast values(303, 1002, 'GUEST');
insert into movie_cast values(304, 1004, 'HERO');
commit;
select * from movie_cast;

```

| | act_id | mov_id | role |
|---|--------|--------|---------|
| ▶ | 301 | 1001 | HEROINE |
| | 301 | 1002 | HEROINE |
| | 303 | 1002 | GUEST |
| | 303 | 1003 | HERO |
| | 304 | 1004 | HERO |
| * | NULL | NULL | NULL |

```

insert into rating values(1001, 4);

```

```
insert into rating values(1002, 2);
```

```
insert into rating values(1003, 5);
```

```
insert into rating values(1004, 4);
```

```
commit;
```

```
select * from rating;
```

| | mov_id | rev_stars |
|---|--------|-----------|
| ▶ | 1001 | 4 |
| | 1002 | 2 |
| | 1003 | 5 |
| | 1004 | 4 |
| * | NULL | NULL |

1. List the titles of all movies directed by 'Hitchcock'.

```
select mov_title
```

```
from movies
```

```
where dir_id=(select dir_id from director where dir_name='Hitchcock')
```

```
group by mov_title;
```

| | mov_title |
|---|-----------|
| ▶ | AKASH |

2. Find the movie names where one or more actors acted in two or more movies.

```
select m.mov_title
```

```
from movies m, movie_cast mc
```

```
where m.mov_id=mc.mov_id
```

```
and mc.act_id in( select act_id from movie_cast group by act_id having count(act_id)>1)
```

```
group by mov_title
```

```
having count(*)>1;
```

| | mov_title |
|---|------------|
| ▶ | BAHUBALI-1 |

3. List all actors who acted in a movie before 2000 and also in a movie after 2015 (use JOIN operation).

```
select act_name,mov_title,mov_year
from actor a
join movie_cast mc
on a.act_id=mc.act_id
join movies m
on m.mov_id=mc.mov_id
where m.mov_year not between 2000 and 2015;
```

| | act_name | mov_title | mov_year |
|---|----------|------------|----------|
| ▶ | ANUSHKA | BAHUBALI-2 | 2017 |

4. Find the title of movies and number of stars for each movie that has at least one rating and find the highest number of stars that movie received. Sort the result by movie title.

```
select mov_title,max(rev_stars)
from movies
inner join rating using(mov_id)
group by mov_id
having max(rev_stars)>0
order by mov_title;
```

| | mov_title | max(rev_stars) |
|---|------------|----------------|
| ▶ | AKASH | 5 |
| | BAHUBALI-1 | 2 |
| | BAHUBALI-2 | 4 |
| | WAR HORSE | 4 |

5. Update rating of all movies directed by 'Steven Spielberg' to 5.

```
update rating
```

```
set rev_stars=5  
where mov_id in(select mov_id from movies  
where dir_id in(select dir_id from director  
where dir_name='Steven Spielberg'));  
select * from rating;
```

| | mov_id | rev_stars |
|---|--------|-----------|
| ▶ | 1001 | 4 |
| | 1002 | 2 |
| | 1003 | 5 |
| | 1004 | 5 |
| * | NULL | NULL |